

CLAIMS

1. In a wireless communication system supporting a broadcast service, a
2 method comprising:
receiving an IP multicast address and a service option parameter for the
4 broadcast service from a base station during establishment of a
user traffic channel between a packet data serving node and a
6 base station;
receiving a broadcast packet flow sent via an IP network;
8 using the service option parameter to determine header compression;
compressing a packet header of the broadcast packet flow; and
10 mapping the broadcast packet flow identified by an address in the packet
header to the user traffic channel using the IP multicast address.
2. The method as in claim 1, wherein the broadcast service is transmitted
2 by a content server.
3. The method as in claim 1, wherein the broadcast service is transmitted
2 as Internet Protocol data packets.
4. The method as in claim 2, wherein the content server serves the
2 broadcast packet flow to the packet data serving node via the IP network.
5. The method as in claim 1, wherein the broadcast packet flow comprises
2 video data.
6. The method as in claim 1, wherein the broadcast packet flow comprises
2 audio data.
7. The method as in claim 1, wherein the user traffic channel is an A10
2 connection.

8. The method as in claim 1, wherein the IP multicast address and the
2 service option parameter are received over a signaling connection between
the packet data serving node and the base station.
9. The method as in claim 8, wherein the signaling connection is an A11
2 connection.
10. The method as in claim 9, wherein the IP multicast address and the
2 service option parameter are transmitted with an A11 registration request
message.
11. A packet data serving node configured to implement a method
2 comprising:
4 receiving flow treatment and mapping data from a base station during
establishment of a user traffic channel with the base station;
6 receiving a broadcast packet flow;
using a service option parameter from the flow treatment and mapping
8 data to determine header compression;
compressing a packet header of the broadcast packet flow; and
10 mapping the broadcast packet flow identified by an address in the packet
header to the user traffic channel using an IP multicast address
from the flow treatment and mapping data.
12. The packet data serving node as in claim 11, wherein the broadcast
2 packet flow is transmitted by a content server.
13. The packet data serving node as in claim 11, wherein the broadcast
2 packet flow is transmitted as Internet Protocol data packets.
14. The packet data serving node as in claim 11, wherein a content server
2 serves the broadcast packet flow to the packet data serving node via an IP
network.

15. The packet data serving node as in claim 11, wherein the broadcast
2 packet flow comprises video data.
16. The packet data serving node as in claim 11, wherein the broadcast
2 packet flow comprises audio data.
17. The packet data serving node as in claim 11, wherein the user traffic
2 channel is an A10 connection.
18. The packet data serving node as in claim 11, wherein the IP multicast
2 address and the service option parameter are received over a signaling
connection between the packet data serving node and the base station.
19. The packet data serving node as in claim 18, wherein the signaling
2 connection is an A11 connection.
20. The packet data serving node as in claim 19, wherein the IP multicast
2 address and the service option parameter are transmitted with an A11
registration request message.
21. A packet data serving node for receiving IP packets from an IP network
2 and operating to send the IP packets to a base station, the packet data
serving node comprising:
4 an A10 connection for communicating user traffic to the base station;
an A11 connection for communicating signaling information to the base
6 station;
an IP network connection for connecting the packet data serving node to
8 the IP network;
flow treatment and mapping data comprising an IP multicast address and
10 a service option parameter, wherein the packet data serving node
is configured to receive the flow treatment and mapping data from
12 the base station over the A11 connection in establishing the A10
connection and wherein the packet data serving node is further
14 configured to store the flow treatment and mapping data;

means for mapping the IP packets to the A10 connection based on a
16 multicast address of the IP packets and using the flow treatment
and mapping data; and
18 means for compressing an IP header based on the service option
parameter.

22. The packet data serving node as in claim 21, wherein the IP packets are
2 transmitted by a content server.

23. The packet data serving node as in claim 22, wherein the content server
2 serves the IP packets to the packet data serving node via the IP network.

24. The packet data serving node as in claim 21, wherein the IP packets
2 comprise video data.

25. The packet data serving node as in claim 21, wherein the IP packets
2 comprise audio data.

26. The packet data serving node as in claim 21, wherein the flow treatment
2 and mapping data is parsed from an A11 registration request message.

27. A base station for use in a wireless communication system supporting a
2 broadcast service, wherein the base station is configured to implement a
method comprising:
4 configuring flow treatment and mapping data comprising an IP multicast
address and a service option parameter;
6 establishing a signaling connection with a packet data serving node;
requesting a user traffic channel with the packet data serving node
8 through the signaling connection;
sending the flow treatment and mapping data to the packet data serving
10 node during user traffic channel setup;
establishing the user traffic channel with the packet data serving node;
12 and

14 receiving IP packets on the user traffic channel, wherein the IP packets
are addressed to the IP multicast address and wherein a packet
header of the IP packets is compressed according to the service
16 option parameter.

28. The base station as in claim 27, wherein the IP packets comprise video
2 data.

29. The base station as in claim 27, wherein the IP packets comprise audio
2 data.

30. The base station as in claim 27, wherein the user traffic channel is an
2 A10 connection.

31. The base station as in claim 27, wherein the signaling connection is an
2 A11 connection.

32. The base station as in claim 27, wherein the flow treatment and mapping
2 data are sent to the packet data serving node as part of an A11 registration
request message.

33. A wireless communication apparatus, comprising:
2 means for receiving an IP multicast address and a service option
parameter for the broadcast service from a base station during
4 establishment of a user traffic channel between a packet data
serving node and a base station;
6 means for receiving a broadcast packet flow sent via an IP network;
means for determining header compression based on the service option
8 parameter;
means for compressing a packet header of the broadcast packet flow;
10 and
means for mapping the broadcast packet flow identified by an address in
12 the packet header to the user traffic channel using the IP multicast
address.